

## AMENDMENT AND RESPONSE

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Serial No.: 09/921,945

Filing Date: August 3, 2001

Attorney Docket No. 100.133US01

Title: CIRCUIT AND METHOD FOR SERVICE CLOCK RECOVERY

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REMARKS

Applicant has reviewed the Office Action mailed on July 1, 2005 as well as the art cited. Claims 32-35 and 56-60 are pending in this application.

Response to Amendment

Applicant thanks the Examiner for indicating that the terminal disclaimer filed on April 15, 2005 was reviewed, accepted and recorded.

Applicant thanks the Examiner for indicating that minor informalities with respect to claims 13 and 14 have been reviewed and accepted.

Applicant thanks the Examiner for indicating that the amendment to the specification on pages 10 and 12 with respect to changing the R'TS to RTS' was reviewed and accepted.

Information Disclosure Statement

The Examiner indicated that no Information Disclosure Statement had been received in the Examiner's docket for this application. Enclosed herewith is a copy of the Information Disclosure Statement as filed on April 4, 2003, including a copy of the return postcard stamped as received by the USPTO on April 7, 2003. Applicant respectfully requests that a copy of the 1449 form, listing all references that were submitted with the Information Disclosure Statement filed on April 4, 2003, marked as being considered and initialed by the Examiner, be returned with the next official communication.

Rejections Under 35 U.S.C. § 102

Claim 32 was rejected under 35 USC § 102(b) as being anticipated by Upp et al., (U.S. Patent No. 5,608,731), hereinafter referred to as Upp. Applicant respectfully traverses this rejection.

Claim 32 is directed to a method for service clock recovery. The method includes removing RTS values from data packets at the destination node, and using the removed RTS values over a plurality of time periods to set the service clock for the destination node.

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Claim 32 is not anticipated by Upp. Claim 32 calls for "using the removed RTS values over a plurality of time periods." The portions of Upp cited by the Examiner with respect to using the removed RTS values over a plurality of time periods do not describe using RTS values over a plurality of time periods as contemplated by claim 32 of the present application. Reference to the specification provides an example of one embodiment for "using RTS values over a plurality of time periods", specifically, the specification of the present application describes this process at paragraphs [0022] and [0027]. The specification provides "AAL overhead processor 110 extracts RTS values and passes the RTS values to counting circuit 112" in paragraph [0022]. Further, the specification provides "Microcontroller 116 is programmed to generate a number that sets the frequency of direct digital synthesis circuit 120 based on RTS values processed by counting circuit 112 over a plurality of time periods" in paragraph [0027] of the present application. In discussing the use of RTS, Upp states "Every N local clock cycles, the **new incoming RTS** as reconstructed by the AAL overhead processor 46 (see FIG. 2) and stored in the RTS FIFO 48 ( $RTS_{rec}$ ) is likewise compared in a mod-16 comparator 504 to the **previous incoming RTS**. Again, the negative sum is converted into a positive value by the comparator mod-16 comparator 504. The resulting delta ( $\Delta RTS_{rec}$ ) is provided to summer (subtractor) 506 where it is compared to the local RTS delta" (*see* Upp, Col. 5, lines 23-36; *emphasis added*). Upp does teach or suggest using the removed RTS values over a plurality of time periods as taught in claim 32. Therefore, claim 32 is not anticipated by Upp. Withdrawal of the rejection is respectfully requested.

Claim 56 was rejected under 35 U.S.C. § 102(e) as being anticipated by Jay et al. (U.S. Patent No. 6,400,683), hereinafter referred to as Jay. Applicant respectfully traverses this rejection.

Claim 56 is directed to a method for adaptive clock recovery. The method includes monitoring a buffer fill level for a plurality of time periods, identifying a relative maximum fill level during the plurality of time periods, and controlling the frequency of a recovered clock signal based on the relative maximum fill levels for the plurality of time periods such that the recovered clock signal is substantially free of jitter.

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Applicant respectfully asserts that Jay does not anticipate the method of claim 56. In particular, Jay fails to teach or suggest "identifying a relative maximum fill level during the plurality of time periods" as recited in claim 56. The Examiner states that "in col. 6, lines 30-53; each successive observation period, the maximum fill occupancy level is identified". (See Office Action, page 4.)

The portions of Jay cited by the Examiner do not accomplish identifying relative maximum fill levels in the manner claimed in the present application. Further, Jay is completely silent as to a "relative maximum fill level during the plurality of time periods" as recited in claim 56. At most, Jay states that "The process is initiated by a step 600 of measuring the **current fill occupancy level** of the receiver play out buffer." and "The system then **waits (operation 606)** for the next observation period to be completed." (See Jay, Col. 6, lines 31-33 and lines 40-41; emphasis added.) Jay does not teach or suggest identifying a relative maximum fill level during the plurality of time periods as cited in claim 56. Therefore, claim 56 is not anticipated by Jay. Withdrawal of the rejection is respectfully requested.

*Rejections Under 35 U.S.C. § 103*

Claim 35 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Upp in view of Muntz et al. (U.S. Patent No. 5,894,427), hereinafter referred to as Muntz.

Claim 35 is dependent from claim 32 and therefore the arguments presented above with respect to claim 32 also apply to this claim. Claim 35 further includes using buffer fill levels to control the local service clock.

Applicant respectfully asserts that neither Upp nor Muntz, alone or in combination, teach or suggest the method of claim 35. In particular, the Examiner asserts that it would have been obvious to one of skill in the art at the time the invention was made "to modify the teachings for Upp to include buffer level monitoring as taught by Muntz. One is motivated as such in order to provide a constant bit rate service." In assessing the motivation to combine the references, the Examiner has provided no evidentiary basis to support the assertion that Upp suffers from the need for using buffer fill levels to control the local service clock. Absent such evidence, the combination of the references is improper.

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Further, Applicant respectfully asserts that use of the combination of Upp with Muntz in rejecting claim 35 is invalid in view of the arguments presented above with respect to claim 32. Withdrawal of the rejection is respectfully requested.

Allowable Subject Matter

Applicant thanks the Examiner for indicating that claims 1-31, 36-40, and 42-55 were allowed.

Claims 33-34 and 57-60 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In view of the arguments presented above, applicant respectfully asserts that these claims are allowable without amendment. Withdrawal of the objection is respectfully requested.

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**CONCLUSION**

Applicant respectfully submits that claims 32-35 and 56-60 are in condition for allowance and notification to that effect is earnestly requested. If necessary, please charge any additional fees or credit overpayments to Deposit Account No. 502432.

If the Examiner has any questions or concerns regarding this application, please contact the undersigned at (612) 455-1680.

Respectfully submitted,

Date: October 3, 2005

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